

Work Instructions

DIRECTIVE NO. 205.W-WI-1040.Y.6
EFFECTIVE DATE: May 01, 2001
EXPIRATION DATE: N/A

APPROVED BY: _____
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TITLE: Environmental Group Lead

Responsible Office: 205.2/Environmental Office
Title: Hazardous Substance Contingency Procedures

P1. PURPOSE

This Work Instruction (WI) describes methods that minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or nonsudden release of a hazardous substance to air, soil, or surface water at the NASA Goddard Space Flight Center's Wallops Flight Facility. This shall be accomplished by a coordinated effort involving Wallops Flight Facility staff and, if necessary, assistance from the local fire department and the Virginia Department of Environmental Quality (DEQ).

P2. SCOPE

This plan covers contingency and emergency procedures for hazardous substance spills, including hazardous waste spills at the Wallops Flight Facility hazardous waste accumulation areas: Buildings B-29, E-2, N-223, and U-81. The provisions of this WI are to be implemented immediately upon a fire, explosion, or release of a hazardous substance.

P3. DEFINITIONS

- 3.1 DEQ: Virginia Department of Environmental Quality
- 3.2 PPE: Personal Protective Equipment

P4. RECORDS, REPORTS, AND FORMS

Not applicable.

P5. SAFETY PRECAUTIONS AND WARNING NOTES

All personnel working with hazardous waste must wear the appropriate personal protective equipment.

P6. REFERENCES

- 6.1 Hazardous Substance Contingency Plan, 40 CFR 262.34.
- 6.2 Hazardous Waste Operations and Emergency Response, 29 CFR 1910.120.
- 6.3 Virginia Administrative Code 9 VAC 20-60-265.
- 6.4 Wallops Flight Facility Fire Department Operating Guideline Island Evacuation Contingency Plan (Fires and Emergencies) OPS: 2009
- 6.5 Hurricane/Nor'Easter Preparedness Plan For Wallops Flight Facility

DIRECTIVE NO. 205.W-WI-1040.Y.6

EFFECTIVE DATE: May 01, 2001

EXPIRATION DATE: N/A

6.6 Mission Specific Operations and Safety Directive

P7. TOOLS, EQUIPMENT, AND MATERIALS

7.1 Personal protective equipment (PPE) located in Buildings B-29, E-2, N-223, and U-81 (EPA Level D for oil, as appropriate for hazardous waste) are as follows:

- Protective suits
- Gloves
- Rubber boots/waders
- Hard hats

7.2 Emergency equipment stored in Building B-29:

- Bagged clay absorbent
- Vermiculite
- Sorbent pads, booms, and pillows
- Class A, B, and C fire extinguisher
- Manual hand siphon pump
- Electric pump
- Empty drums
- Tool kit
- Shovels
- Brooms and pans

7.3 Buildings E-2, N-223, and U-81 also contain spill kits and small quantities of PPE.

P8. INSTRUCTIONS

8.1 Witness Responsibilities

Only properly trained personnel shall conduct emergency response operations. Facility personnel shall perform the following upon witnessing a fire, explosion, hazardous substance release, or other incident that could endanger human health or the environment:

- Ensure your personal safety.
- Attempt to stop the flow and isolate or contain the release.
- Activate internal alarms, or otherwise warn all building occupants of danger.
- Exit the building using the evacuation plan.
- Notify the Emergency Console of the incident (extension 1333 from onsite or radio channel 1, (757) 824-1333 from offsite).
- Proceed to the designated meeting area; standby until the Emergency Coordinator assumes authority.

DIRECTIVE NO. 205.W-WI-1040.Y.6

EFFECTIVE DATE: May 01, 2001

EXPIRATION DATE: N/A

- Remain available to assist the Emergency Coordinator with information concerning the initial incident observation.

8.2 Emergency Coordinator

At all times there shall be at least one employee on the facility premises, or on-call, and available to reach the facility in a short period of time with the responsibility for coordinating all emergency response measures. This Emergency Coordinator shall be thoroughly familiar with all aspects of the facility's contingency plan, all operations and activities at the facility, the location and characteristics of wastes handled, the location of all records within the facility, and the facility layout. In addition, this person shall have the authority to commit the resources necessary to execute the contingency plan. The Wallops Flight Facility Fire Department, or its designee, shall act as the Emergency Coordinator for all Wallops Flight Facility incidents requiring emergency response.

Emergency Console: 1333 (from Wallops Flight Facility phones) and
(757) 824-1333 (from off Facility and other phones)
and radio channel 1.

Emergency Coordinator	Facility Phone	After Hours Phone	Radio Page
Fire Chief	X1720	x1333	Wallops 200
Fire Station #1	X1333	x1333	Wallops 1
Fire Station #2	X1333	x1333	Wallops 2

The Emergency Coordinator will have a support group available for consultation and assistance in determining the course of mitigation of the problem. This group includes the Wallops Flight Facility Safety, Environmental, Security, and Public Affairs staffs.

8.3 Emergency Coordinator Responsibilities

8.3.1 With the Wallops Flight Facility Safety, Environmental, Security, and Public Affairs staffs available for consultation, the Emergency Coordinator shall ensure that the following responsibilities are met:

- Assess the situation.
- Initiate the incident command system.
- Isolate the site and establish access control points.
- Establish a command post.
- Establish hazard zone boundaries, taking into account the magnitude of the problem, wind direction, and adjacent structures. Initiate protective actions and evacuate surrounding buildings, if necessary.
- Identify the character, source, amount, and extent of any released materials by observation or examining facility records or manifests and, if necessary, by chemical analysis.

DIRECTIVE NO. 205.W-WI-1040.Y.6

EFFECTIVE DATE: May 01, 2001

EXPIRATION DATE: N/A

- Initiate basic hazard and risk assessment activities based on types and quantities of materials involved.

- Notify appropriate state and local agencies with designated response roles. Notify additional resources, if necessary, including a Response Contractor for cleanup assistance. See 205.W-WI-1040.Y.5, Oil and Hazardous Substance Release Notification, for the proper protocols and points of contact and Appendix D for Response Contractors.
- Select and use the appropriate PPE.
- Initiate spill containment and control procedures.
- Notify Wallops Flight Facility senior management.
- Coordinate with the Wallops Flight Facility Fire Department in accordance with their Emergency Operations Plan for official announcements concerning the emergency and need for public action. Notify the Wallops Flight Facility Public Affairs Office for press releases.
- Take samples of residues, if necessary, for proper characterization.
- Mitigate the hazard to the point where the scene is determined nonhazardous and no longer a threat to human health and the environment. In the case of a fire or explosion, initiate emergency response immediately. In the case of a spill/release, initiate emergency response if:
 - There is a possibility of toxic fumes, fire, or explosion that present imminent hazards to personnel, property, or the environment;
 - The material can not be contained within the immediate work area;
 - Facility personnel are not trained to contain the release; or
 - Any material is released directly into surface waters.
- Implement decontamination activities for PPE and contaminated areas.
- Ensure that contaminated materials and/or residues are containerized or packaged.

8.3.2 The Emergency Coordinator shall ensure the following criteria are met.

- Cleanup procedures do not pose a compatibility threat between released substances and cleaning agents.
- Leaks and cracks are not present in the clean-up containers.
- Unusual heat is not generated in the containers.
- Residual waste materials are isolated.
- Accumulated hazardous waste that may be incompatible with the released material is not treated, stored, or disposed of in the facility until cleanup is completed.
- All emergency equipment listed in the contingency plan are cleaned and fit for their intended use or are replaced before operations are resumed.

DIRECTIVE NO. 205.W-WI-1040.Y.6

EFFECTIVE DATE: May 01, 2001

EXPIRATION DATE: N/A

- The time, date, and details of any incident that required implementing the contingency plan are noted in the operating record.

8.3.3 Environmental Staff Responsibilities

The Environmental Staff shall be available to the Emergency Coordinator to assist in the following areas:

- Immediately notifying the National Response Center at (800) 424-8802 (and on the internet at www.nrc.uscg.mil/report.htm), the Virginia Department of Emergency Services at (800) 468-8892, the EPA Regional Administrator, and other appropriate state and local authorities;
- Substantiating regulatory compliance;
- Managing environmental aspects of site restoration including decontamination of personnel, equipment, and the scene;
- Transporting, if practicable, the containerized contaminated debris and materials;
- Assisting with arrangements for either onsite remediation or offsite transportation, treatment, storage, and disposal of hazardous wastes, including sampling for waste identification, by an EPA permitted transportation, storage, and disposal facility;
- Submitting a written report, within 5 days of the incident, to the Secretary of the Virginia Department of Environmental Quality and to the EPA Regional Administrator. This report must include the following:
 - Name, address, and telephone number of the reporter;
 - Name, address, and telephone number of the facility;
 - Date, time, and type of incident;
 - Name and quantity of material(s) involved;
 - The extent of injuries, if any;
 - An assessment of actual or potential hazards to human health or the environment, where this is applicable; and
 - Estimated quantity and disposition of recovered materials that resulted from the incident.

8.3.4 Security Staff Responsibilities

Wallops Flight Facility Security Staff will assist the Emergency Coordinator in any evacuation procedures, site access, and security measures.

8.4 Emergency Response Procedures

8.4.1 Notification

Whenever there is an emergency situation, the Emergency Coordinator shall immediately:

- Evaluate the hazard and potential risk and institute appropriate protective actions.
- Activate internal facility alarms or communication systems to notify all Wallops Flight Facility personnel, as appropriate.
- Notify appropriate agencies with designated response roles, as needed.
- Establish an Incident Command System to control the affected area, including all resources necessary to remedy the emergency situation. The Emergency Coordinator will maintain this authority until the emergency has been eliminated and the cleanup is complete.

8.4.2 Identification

Whenever a release, fire, or explosion occurs, the Emergency Coordinator shall immediately initiate action to identify the character, source, amount, and extent of any released material. This may be done by review of the facility records or by chemical analysis. The hazardous waste inventory log, located in Building N-161, Room 105, lists a current inventory of all materials stored in Buildings B-29, E-2, N-223, and U-81.

8.4.3 Assessment

Assess the possible hazards to human health and the environment that may result from the incident. This assessment shall consider both direct and indirect effects of the incident.

8.4.4 Control Procedures

If a release, fire, or explosion occurs, which threatens human health or the environment outside the facility or if a release exceeds the reportable quantity listed in 40 CFR Part 302, the Emergency Coordinator shall ensure notification as follows:

- a. If the assessment indicates that evacuation of local areas is warranted, the Emergency Coordinator shall immediately advise appropriate local authorities.
- b. Ensure that the National Response Center at (800) 424-8802 and the Virginia Department of Environmental Quality at (757) 518-2077 are notified. The notification report shall include:
 - Name and telephone number of the reporter;
 - Name and address of the facility;
 - Time and type of incident;
 - Name and quantity of materials involved, to the extent known;
 - The extent of injuries, if known; and
 - The possible hazards to human health or the environment outside of the facility.
- c. Notify the Wallops Flight Facility senior management.

DIRECTIVE NO. 205.W-WI-1040.Y.6
EFFECTIVE DATE: May 01, 2001
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- d. Notify the Wallops Flight Facility Public Affairs Office for assistance in notifying the public of events, which may adversely impact human health or the environment, outside the facility.

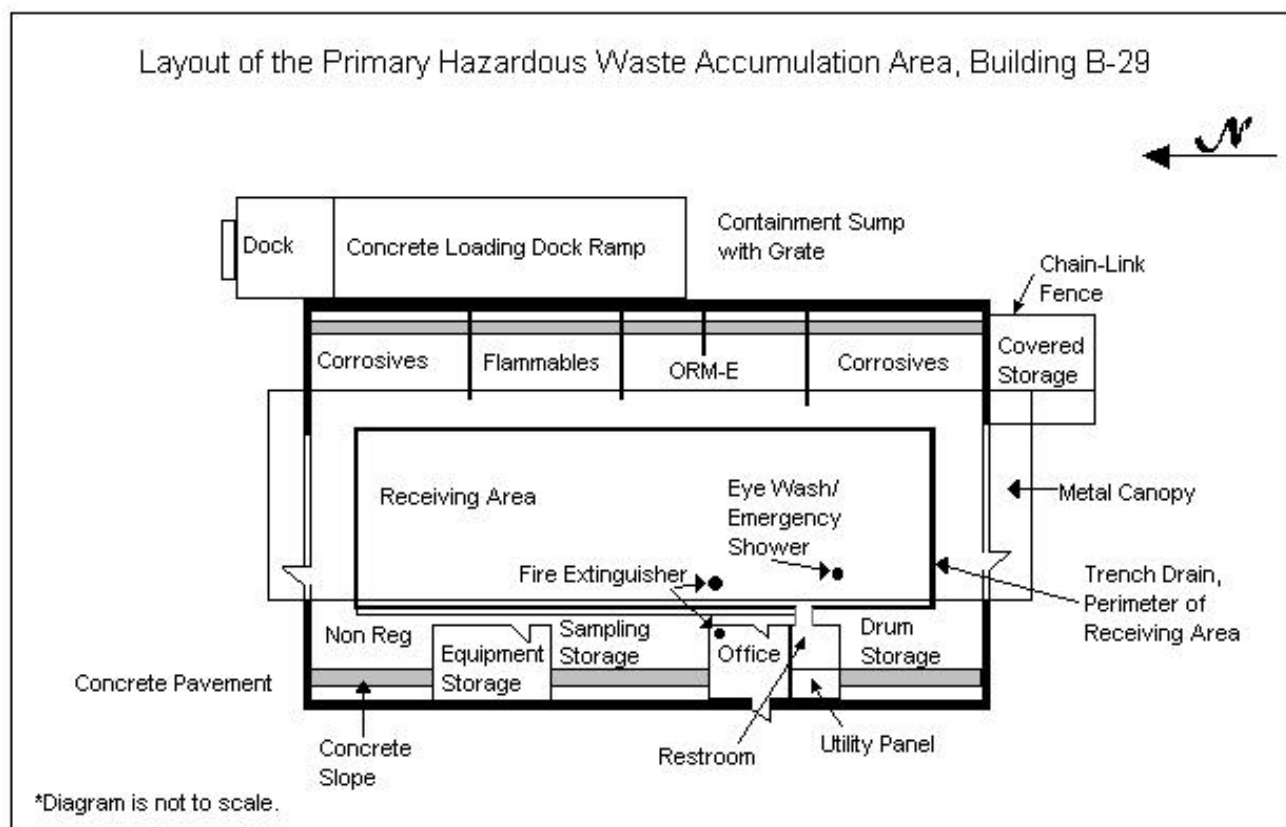
8.4.5 Prevention of Reoccurrence

During and after an emergency, the Emergency Coordinator shall take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, reoccur, or spread to other hazardous waste at the facility. These measures shall include, where applicable, stopping processes and operations, collecting and containing released substances, and removing or isolating containers.

8.4.6 Monitoring

If the facility stops an operation in response to an incident, the Emergency Coordinator will ensure that the operation is monitored for pressure buildup; gas generation; leaks; or rupture in valves, pipes, or other equipment.

**Figure 8.1: Layout of the Primary Hazardous Waste Accumulation Area
Building B-29**



DIRECTIVE NO. 205.W-WI-1040.Y.6

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CHANGE HISTORY LOG

Revision	Effective Date	Description of Changes
<u>Baseline</u>		